

**To:** Smith, Claudia[Smith.Claudia@epa.gov]  
**Cc:** Daly, Carl[Daly.Carl@epa.gov]; Rothery, Deirdre[Rothery.Deirdre@epa.gov]; Tsirigotis, Peter[Tsirigotis.Peter@epa.gov]; Cozzie, David[Cozzie.David@epa.gov]; Koerber, Mike[Koerber.Mike@epa.gov]  
**From:** Moore, Bruce  
**Sent:** Fri 2/26/2016 3:42:24 PM  
**Subject:** U&O FIP control efficiency

Claudia, Carl, and Dee,

## Ex. 5 - Deliberative Process

I understand we have a call on Tuesday to help put this issue to rest.

Bruce

**Bruce Moore**

***Senior Technical Advisor - Oil & Natural Gas Sector***

Office of Air and Radiation

Office of Air Quality Planning and Standards

U.S. Environmental Protection Agency

Research Triangle Park, NC 27711

(919) 541-5460

*moore.bruce@epa.gov*

**For information, visit:** [www3.epa.gov/airquality/oilandgas](http://www3.epa.gov/airquality/oilandgas)

**From:** Smith, Claudia  
**Sent:** Tuesday, February 23, 2016 6:21 PM  
**To:** Moore, Bruce <[Moore.Bruce@epa.gov](mailto:Moore.Bruce@epa.gov)>  
**Subject:** RE: A picture is worth a thousand words....

Hi, Bruce,

## Ex. 5 - Deliberative Process

Thanks,

Claudia

**From:** Smith, Claudia  
**Sent:** Monday, February 22, 2016 2:24 PM  
**To:** Moore, Bruce <[Moore.Bruce@epa.gov](mailto:Moore.Bruce@epa.gov)>  
**Cc:** Rothery, Deirdre <[Rothery.Deirdre@epa.gov](mailto:Rothery.Deirdre@epa.gov)>; Daly, Carl <[Daly.Carl@epa.gov](mailto:Daly.Carl@epa.gov)>; Beeler, Cindy <[Beeler.Cindy@epa.gov](mailto:Beeler.Cindy@epa.gov)>  
**Subject:** RE: A picture is worth a thousand words....  
**Importance:** High

Bruce,

I have edited the reg text in the version of the draft U&O FIP proposal notice on the

# **Ex. 5 - Deliberative Process**

Thank you!

Claudia

**From:** Smith, Claudia  
**Sent:** Friday, February 19, 2016 1:33 PM  
**To:** Koerber, Mike <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>; Daly, Carl <[Daly.Carl@epa.gov](mailto:Daly.Carl@epa.gov)>  
**Cc:** Rothery, Deirdre <[Rothery.Deirdre@epa.gov](mailto:Rothery.Deirdre@epa.gov)>; Moore, Bruce <[Moore.Bruce@epa.gov](mailto:Moore.Bruce@epa.gov)>  
**Subject:** RE: A picture is worth a thousand words....

# **Ex. 5 - Deliberative Process**

# Ex. 5 - Deliberative Process

Thanks,

Claudia

From CDPHE - Frequently Asked Questions - Regulation Numbers 3, 6, 7 - February 2014 Revisions – Volume 1

[https://www.colorado.gov/pacific/sites/default/files/AP\\_Regulation-3-6-7-FAQ.pdf](https://www.colorado.gov/pacific/sites/default/files/AP_Regulation-3-6-7-FAQ.pdf)

## **Storage Tank Control and Capture – Section XVII.C.1. and XVII.C.2.a.**

10. Sources are required to control emissions under Section XVII with at least a 95% control efficiency but also to use a combustion device designed to have a destruction efficiency of 98%.

Why does the Division distinguish between the two percentages?

Sources are required to meet a 95% control efficiency. The Division requires that the combustion device used be designed to have a 98% destruction efficiency, because it recognizes that combustion devices designed to meet a 98% control efficiency may not actually meet this percentage in practice, given the variability of field conditions, downtime, etc.

a. Should operators be using 95% or 98% for emission calculation and permitting

purposes? In other words, are operators required to use 98%, or is 95% still appropriate to use for permitting?

Operators should be using the 95% for emission calculation and permitting purposes.

The Division's permitting unit may approve other emission control efficiencies, where requested and justified.

b. How does the Division plan to confirm design efficiency?

Operators are required to keep records of the manufacturer's specifications or equivalent for air pollution control equipment. See Section XVII.B.2.a.

### **Reg Language**

XVII.C. (State Only) Emission reduction from storage tanks at oil and gas exploration and production operations, well production facilities, natural gas compressor stations, and natural gas processing plants.

XVII.C.1. Control and monitoring requirements for storage tanks

XVII.C.1.a. Beginning May 1, 2008, owners or operators of all storage tanks storing condensate with uncontrolled actual emissions of VOCs equal to or greater than twenty (20) tons per year based on a rolling twelve-month total must operate air pollution control equipment that has an average control efficiency of at least 95% for VOCs.

XVII.C.1.b. Owners or operators of storage tanks with uncontrolled actual emissions of VOCs equal to or greater than six (6) tons per year based on a rolling twelve-month total must operate air pollution control equipment that achieves an average hydrocarbon control efficiency of 95%. If a combustion device is used, it must have a design destruction efficiency of at least 98% for hydrocarbons, except where the combustion device has been authorized by permit prior to May 1, 2014.

XVII.C.2. Capture and monitoring requirements for storage tanks that are fitted with air pollution control equipment as required by Sections XII.D. or XVII.C.1.

XVII.C.2.a. Owners or operators of storage tanks must route all hydrocarbon emissions to air pollution control equipment, and must operate without venting hydrocarbon emissions from the thief hatch (or other access point to the tank) or pressure relief device during normal operation, unless venting is reasonably required for maintenance, gauging, or safety of personnel and equipment. Compliance must be achieved in accordance with the schedule in Section XVII.C.2.b.(ii).

+ text from DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, Air Quality

Control Commission, REGULATION NUMBER 7

CONTROL OF OZONE VIA OZONE PRECURSORS AND CONTROL OF  
HYDROCARBONS VIA OIL AND GAS EMISSIONS

Basis pg. 125

[https://www.colorado.gov/pacific/sites/default/files/5-CCR-1001-9\\_0.pdf](https://www.colorado.gov/pacific/sites/default/files/5-CCR-1001-9_0.pdf)

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## Ex. 5 - Deliberative Process

**From:** Koerber, Mike  
**Sent:** Friday, February 19, 2016 8:50 AM  
**To:** Daly, Carl <[Daly.Carl@epa.gov](mailto:Daly.Carl@epa.gov)>  
**Cc:** Rothery, Deirdre <[Rothery.Deirdre@epa.gov](mailto:Rothery.Deirdre@epa.gov)>; Smith, Claudia <[Smith.Claudia@epa.gov](mailto:Smith.Claudia@epa.gov)>;  
Moore, Bruce <[Moore.Bruce@epa.gov](mailto:Moore.Bruce@epa.gov)>  
**Subject:** RE: A picture is worth a thousand words....

Thanks, Carl.

Bruce – your comments?

**From:** Daly, Carl  
**Sent:** Friday, February 19, 2016 10:45 AM  
**To:** Koerber, Mike <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)>

**Cc:** Rothery, Deirdre <[Rothery.Deirdre@epa.gov](mailto:Rothery.Deirdre@epa.gov)>; Smith, Claudia <[Smith.Claudia@epa.gov](mailto:Smith.Claudia@epa.gov)>;  
Moore, Bruce <[Moore.Bruce@epa.gov](mailto:Moore.Bruce@epa.gov)>  
**Subject:** Re: A picture is worth a thousand words....

## Ex. 5 - Deliberative Process

If this approach makes sense to OAQPS, we will run the new language by OAQPS and OGC soon.

Carl Daly 303-312-6416

On Feb 19, 2016, at 8:31 AM, Koerber, Mike <[Koerber.Mike@epa.gov](mailto:Koerber.Mike@epa.gov)> wrote:

## Ex. 5 - Deliberative Process

Mike

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